SEQUENCE LISTING

<110> Ira Herman
      Alice Welch

<120> BETA-CAP73 CONTROL OF NORMAL AND
      ABNORMAL CELL MIGRATION

<130> TUI-001CP

<140> US 09/750,590
<141> 2000-12-28

<150> 60/170,182
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gcggagaagg attccgaaga cgaagagttc taagaagaag gactgagtca ctagttagga 240
agcatgaaga ttgcagaaca ggaagagccac agtgatttgt aacttaatgc gaactaattt 300
gtctctctga gggctggctt tgtgagccac agtgatttgt aacttaatgc gaactaattt 360
gctgttagca acaagaaact aaatcctgtc t atg atg agc tgt tgg ttt tct   412
                                  Met Met Ser Cys Trp Phe Ser
                                   1   5

tgt gct cct aag aac aga caa gca gca gat tgg aac aaa tac gat gac   460
Cys Ala Pro Lys Asn Arg Gln Ala Ala Asp Trp Asn Lys Tyr Asp Asp
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cga ttg atg aga gca gca gaa agg gga gat gta gaa aaa gtg tcc tca   508
Arg Leu Met Arg Ala Ala Glu Arg Gly Asp Val Glu Lys Val Ser Ser
     25   30   35

atc ctt gct aaa aag gga gtc aat cca ggc aag cta gat gta gaa ggc   556
Ile Leu Ala Lys Lys Gly Val Asn Pro Gly Lys Leu Asp Val Glu Gly
 40   45   50   55

aga tct gcc ttt cat gtt gtg gcc tca aag gga aat ctt gag tgt ttg   604

Arg Ser Ala Phe His Val Val Ala Ser Lys Gly Asn Leu Glu Cys Leu
                60   65   70

aat gcc atc ctc ata cat gga gtt gat att aca acc agt gac acc gca   652
Asn Ala Ile Leu Ile His Gly Val Asp Ile Thr Thr Ser Asp Thr Ala
            75   80   85

gga agg aat gct ctt cac ctg gct gca aag tat ggg cat gca ctg tgt   700
Gly Arg Asn Ala Leu His Leu Ala Ala Lys Tyr Gly His Ala Leu Cys
            90   95   100

cta caa aaa ctt cta cag tac aat tgt ccc act gaa cat gta gac ctg   748
Leu Gln Lys Leu Leu Gln Tyr Asn Cys Pro Thr Glu His Val Asp Leu
            105   110   115

cag gga aga act gca ctt cat gat gca gct atg gca gac tgt cct tct   796
Gln Gly Arg Thr Ala Leu His Asp Ala Ala Met Ala Asp Cys Pro Ser   135
120   125   130

agc ata cag ctg ctc tgc gac cat ggg gcc tcg gtg aat gcc aaa gat   844
Ser Ile Gln Leu Leu Cys Asp His Gly Ala Ser Val Asn Ala Lys Asp
            140   145   150

gta gat ggg cgg aca cca ctt gtt ctg gct acc cag atg tgt agg cca   892
Val Asp Gly Arg Thr Pro Leu Val Leu Ala Thr Gln Met Cys Arg Pro
            155   160   165

aca ata tgt caa ctg ctg ata gat aga ggg gcg gat att aat tcc aga   940
Thr Ile Cys Gln Leu Leu Ile Asp Arg Gly Ala Asp Ile Asn Ser Arg
            170   175   180

gac aaa caa aac agg act gct ctc atg cta gga tgc gag tat ggt tgc   988
Asp Lys Gln Asn Arg Thr Ala Leu Met Leu Gly Cys Glu Tyr Gly Cys
            185   190   195

aaa gat gca gta gaa gtc tta atc aaa aac ggc gct gac gtg acc ttg   1036
Lys Asp Ala Val Glu Val Leu Ile Lys Asn Gly Ala Asp Val Thr Leu   215
200   205   210

ctg gac gcc ctt ggc cat gac agt tct tac tat gca aga att ggt gac   1084
Leu Asp Ala Leu Gly His Asp Ser Ser Tyr Tyr Ala Arg Ile Gly Asp
            220   225   230

aat ctg gac att cta acc tta ctg aag act gca tca gaa aat tcc aac   1132
Asn Leu Asp Ile Leu Thr Leu Leu Lys Thr Ala Ser Glu Asn Ser Asn
            235   240   245

aaa ggg aga gaa ctt tgg aag aaa gga cca tct tta caa cag cga aat   1180
Lys Gly Arg Glu Leu Trp Lys Lys Gly Pro Ser Leu Gln Gln Arg Asn
            250   255   260

ttg tct cag atg cta gat gaa gta aat acg aag tca aat cag agg gag   1228
Leu Ser Gln Met Leu Asp Glu Val Asn Thr Lys Ser Asn Gln Arg Glu
            265   270   275

cat caa aac att cag gat ctg gag att gaa aat gaa gat ctg aaa gag   1276
His Gln Asn Ile Gln Asp Leu Glu Ile Glu Asn Glu Asp Leu Lys Glu

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                                                                        1324
aga ttg aga aaa att cag caa gaa cag aga ata tta ttg gat aaa gtc
Arg Leu Arg Lys Ile Gln Gln Glu Gln Arg Ile Leu Leu Asp Lys Val
            300                       305               310

                                                                        1372
aat ggt tta cag cta cag ctg aat gag gaa gta atg gtg gct gat gat
Asn Gly Leu Gln Leu Gln Leu Asn Glu Glu Val Met Val Ala Asp Asp
        315                   320               325

                                                                        1420
ctg gaa agt gag aaa gaa aag ctg aag tcc ctt ttg gca gcc aaa gaa
Leu Glu Ser Glu Lys Glu Lys Leu Lys Ser Leu Leu Ala Ala Lys Glu
        330               335               340

                                                                        1468
aag cag cat gaa gaa agc cta aga act att gag gct ctg aaa agt aga
Lys Gln His Glu Glu Ser Leu Arg Thr Ile Glu Ala Leu Lys Ser Arg
        345               350               355

                                                                        1516
ttt aag tat ttt gag agt gat cat tta gga tca gga agt cat ttc agg
Phe Lys Tyr Phe Glu Ser Asp His Leu Gly Ser Gly Ser His Phe Arg
360             365               370               375

                                                                        1564
aaa gaa gat atg ctt ctt aaa caa ggt caa atg tac atg aca gac tca
Lys Glu Asp Met Leu Leu Lys Gln Gly Gln Met Tyr Met Thr Asp Ser
                380               385               390

                                                                        1612
cag tgt act tcc aca ggc atg cca gtc cat atg caa agc cga tct atg
Gln Cys Thr Ser Thr Gly Met Pro Val His Met Gln Ser Arg Ser Met
                395               400               405

                                                                        1660
tta aga cca ctg gag cta gcc tta cct aat caa gcc tca tat tcg gaa
Leu Arg Pro Leu Glu Leu Ala Leu Pro Asn Gln Ala Ser Tyr Ser Glu
                410               415               420

                                                                        1708
aac gaa att tta aag aaa gaa tta gaa gca atg aga act ttc tgt gat
Asn Glu Ile Leu Lys Lys Glu Leu Glu Ala Met Arg Thr Phe Cys Asp
                425               430               435

                                                                        1756
tca gca aaa caa gac aga ctc aaa ctc caa aat gaa ctg gct cac aag
Ser Ala Lys Gln Asp Arg Leu Lys Leu Gln Asn Glu Leu Ala His Lys
440             445               450               455

                                                                        1804
gtg gcg gag tgc aag gcc tta gca ttg gaa tgt gaa agg gtg aaa gag
Val Ala Glu Cys Lys Ala Leu Ala Leu Glu Cys Glu Arg Val Lys Glu
                460               465               470

                                                                        1852
gat tca gat gag cag ata aag caa cta gaa gat gcc ttg aaa gac gtg
Asp Ser Asp Glu Gln Ile Lys Gln Leu Glu Asp Ala Leu Lys Asp Val
                475               480               485

                                                                        1900
cag aag aga atg tat gag tcg gaa ggt aaa gtg aaa caa atg cag aca
Gln Lys Arg Met Tyr Glu Ser Glu Gly Lys Val Lys Gln Met Gln Thr
                490               495               500

                                                                        1948
cat ttt ctt gcc ttg aaa gag cac ctg aca agt gat gcg gcc act ggg
His Phe Leu Ala Leu Lys Glu His Leu Thr Ser Asp Ala Ala Thr Gly
                505               510               515
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aac cac agg ctg atg gag gaa ctg aag gat cag ttg aaa gac atg aaa      1996
Asn His Arg Leu Met Glu Glu Leu Lys Asp Gln Leu Lys Asp Met Lys
520                   525                   530                   535

gtg aaa tac gaa ggt gcg tcc gca gaa gtg ggg aaa ttg aga aac caa      2044
Val Lys Tyr Glu Gly Ala Ser Ala Glu Val Gly Lys Leu Arg Asn Gln
                              540                   545                   550

atc aaa caa aat gaa atg tta gtt gaa gag ttt aag aga gat gag ggc      2092
Ile Lys Gln Asn Glu Met Leu Val Glu Glu Phe Lys Arg Asp Glu Gly
                   555                   560                   565

aag ctg atg gaa gag aat aag cga ctg cag aag gag ttg agc atg tgt      2140
Lys Leu Met Glu Glu Asn Lys Arg Leu Gln Lys Glu Leu Ser Met Cys
                   570                   575                   580

gaa ctg gag cga gag aag aga gga agg aag ctc act gag atg gaa ggc      2188
Glu Leu Glu Arg Glu Lys Arg Gly Arg Lys Leu Thr Glu Met Glu Gly
585                   590                   595

cag tta aag gac ttg tca gcc aag ctg gcc ctt tct att cca gca gag      2236
Gln Leu Lys Asp Leu Ser Ala Lys Leu Ala Leu Ser Ile Pro Ala Glu
600                   605                   610                   615

aaa ttt gaa aac atg aag agc ttg tta tca aat gaa ctg aac gag aag      2284
Lys Phe Glu Asn Met Lys Ser Leu Leu Ser Asn Glu Leu Asn Glu Lys
                              620                   625                   630

gca aaa aaa tta ata gat gtg gaa aga gaa tat gaa aga tca ctt aat      2332
Ala Lys Lys Leu Ile Asp Val Glu Arg Glu Tyr Glu Arg Ser Leu Asn
                   635                   640                   645

gaa act aga cca tta aag aga gaa ctt gag aat ttg aag gcc aaa ctg      2380
Glu Thr Arg Pro Leu Lys Arg Glu Leu Glu Asn Leu Lys Ala Lys Leu
                   650                   655                   660

gct cag cac gtc aaa cca gag gaa cat gag cag ctc aag agc aga tta      2428
Ala Gln His Val Lys Pro Glu Glu His Glu Gln Leu Lys Ser Arg Leu
665                   670                   675

gag cag aag tca gga gaa ctt ggg aag agg atc act gag tta aca tcg      2476
Glu Gln Lys Ser Gly Glu Leu Gly Lys Arg Ile Thr Glu Leu Thr Ser
680                   685                   690                   695

aaa aat cag acg tta caa aag gaa atc gaa aag gtc tgc ctg gat aat      2524
Lys Asn Gln Thr Leu Gln Lys Glu Ile Glu Lys Val Cys Leu Asp Asn
                              700                   705                   710

aag ctc ctt aca caa caa gta aat aac tta aca act gaa atg aaa aat      2572
Lys Leu Leu Thr Gln Gln Val Asn Asn Leu Thr Thr Glu Met Lys Asn
                   715                   720                   725

gtc cct tta aaa gta agt gaa gaa atg aaa aag tca cat gat gta att      2620
Val Pro Leu Lys Val Ser Glu Glu Met Lys Lys Ser His Asp Val Ile
                   730                   735                   740
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gtt gat gat ttg aat aaa aag ctt tca gat gtg aca cac aaa tat aca      2668
Val Asp Asp Leu Asn Lys Lys Leu Ser Asp Val Thr His Lys Tyr Thr
745                 750                 755

gaa aag aag ttg gaa atg gag aag ttg ctt atg gaa aat gcc agt tta      2716
Glu Lys Lys Leu Glu Met Glu Lys Leu Leu Met Glu Asn Ala Ser Leu
760                 765                 770                 775

agt aaa aat gtc agc cgc ctg gaa act gtg ttc ata cct ccc gag aga      2764
Ser Lys Asn Val Ser Arg Leu Glu Thr Val Phe Ile Pro Pro Glu Arg
                    780                 785                 790

cac gaa aaa gaa atg atg gct ctg aaa tcc aat atc act gaa ctt aag      2812
His Glu Lys Glu Met Met Ala Leu Lys Ser Asn Ile Thr Glu Leu Lys
                795                 800                 805

aag cag ctg tct gaa ctt aat aaa aaa tgt ggt gaa gac caa gag aaa      2860
Lys Gln Leu Ser Glu Leu Asn Lys Lys Cys Gly Glu Asp Gln Glu Lys
            810                 815                 820

ata tat tca ctc atg tct gaa aac aat gat ttg aaa aag acc atg agt      2908
Ile Tyr Ser Leu Met Ser Glu Asn Asn Asp Leu Lys Lys Thr Met Ser
        825                 830                 835

cat cag tat gtg ccc gtg aaa acc cat gaa gag att aaa act gcc ttg      2956
His Gln Tyr Val Pro Val Lys Thr His Glu Glu Ile Lys Thr Ala Leu
840                 845                 850                 855

agt agc aca ttg gat aaa acc aat aga gaa tta gta gat gtg aag aag      3004
Ser Ser Thr Leu Asp Lys Thr Asn Arg Glu Leu Val Asp Val Lys Lys
                    860                 865                 870

aag tgt gaa gat ata aat caa gaa ttt gtg aaa ata aaa gat gag aac      3052
Lys Cys Glu Asp Ile Asn Gln Glu Phe Val Lys Ile Lys Asp Glu Asn
                875                 880                 885

gaa ata tta aaa aga aat ctg gag aac act cag aac caa gta aaa gct      3100
Glu Ile Leu Lys Arg Asn Leu Glu Asn Thr Gln Asn Gln Val Lys Ala
            890                 895                 900

gag tac atc agc cta aga gag cat gaa gaa aag atg agt ggc cta agg      3148
Glu Tyr Ile Ser Leu Arg Glu His Glu Glu Lys Met Ser Gly Leu Arg
        905                 910                 915

aag agc atg aag aag gtc cag gac aac agc gct gaa ata ctg gct aag      3196
Lys Ser Met Lys Lys Val Gln Asp Asn Ser Ala Glu Ile Leu Ala Lys
920                 925                 930                 935

tac aaa aaa agc cag gag gag att gtc acc ctg cat gag gag att gca      3244
Tyr Lys Lys Ser Gln Glu Glu Ile Val Thr Leu His Glu Glu Ile Ala
                    940                 945                 950

gcc cag aag aga gaa ctc gac acg ata cag gaa tgc atc aag cta aaa      3292
Ala Gln Lys Arg Glu Leu Asp Thr Ile Gln Glu Cys Ile Lys Leu Lys
                955                 960                 965

tat gct ccg atc atc agc ttg gaa gag tgt gag aga aaa ttt aaa gcc      3340
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Tyr Ala Pro Ile Ile Ser Leu Glu Glu Cys Glu Arg Lys Phe Lys Ala
970   975   980

act gag aaa gaa cta aaa gaa cag cta tcc cag cag aca cag aag tat   3388
Thr Glu Lys Glu Leu Lys Glu Gln Leu Ser Gln Gln Thr Gln Lys Tyr
985   990   995

aat acc agt gaa gaa gag gcc aag aag tgc aag caa gag aat gac aag   3436
Asn Thr Ser Glu Glu Glu Ala Lys Lys Cys Lys Gln Glu Asn Asp Lys
1000   1005   1010   1015

tta aag aag gag atc ctc act ctt cag aag gat cta aag gat aag aat   3484
Leu Lys Lys Glu Ile Leu Thr Leu Gln Lys Asp Leu Lys Asp Lys Asn
1020   1025   1030

gtt cac att gag aat tct tat gaa aca gaa aga gca tta agc aga aaa   3532
Val His Ile Glu Asn Ser Tyr Glu Thr Glu Arg Ala Leu Ser Arg Lys
1035   1040   1045

aca gaa gag ctg aac aga cag tta aaa gac ctg ttg cag aaa tac aca   3580
Thr Glu Glu Leu Asn Arg Gln Leu Lys Asp Leu Leu Gln Lys Tyr Thr
1050   1055   1060

gag gca aag aag gag aaa gag aag ctc gtg gag gaa aat gcc aag cag   3628
Glu Ala Lys Lys Glu Lys Glu Lys Leu Val Glu Glu Asn Ala Lys Gln
1065   1070   1075

act tct gag atc ctt gca gca caa act ctt ttg cag aag cag cat gtt   3676
Thr Ser Glu Ile Leu Ala Ala Gln Thr Leu Leu Gln Lys Gln His Val
1080   1085   1090   1095

ccg ctg gag cag gtt gag tcc ctg aaa aaa tct ctt agt ggt aca atc   3724
Pro Leu Glu Gln Val Glu Ser Leu Lys Lys Ser Leu Ser Gly Thr Ile
1100   1105   1110

gag aca ctc aag gaa gaa ctg aaa act aag cag aga tgt tat gag aaa   3772
Glu Thr Leu Lys Glu Glu Leu Lys Thr Lys Gln Arg Cys Tyr Glu Lys
1115   1120   1125

gag cag cag aca gtg acc caa ctg cgg cag atg ctg gag aat cag aag   3820
Glu Gln Gln Thr Val Thr Gln Leu Arg Gln Met Leu Glu Asn Gln Lys
1130   1135   1140

aac tcc tct gtg ccc ctg gct gag cat ttg cag gtt aag gaa gca ttt   3868
Asn Ser Ser Val Pro Leu Ala Glu His Leu Gln Val Lys Glu Ala Phe
1145   1150   1155

gag aaa gaa gtt gga atc ata aaa gct agc ttg aga gaa aag gaa gaa   3916
Glu Lys Glu Val Gly Ile Ile Lys Ala Ser Leu Arg Glu Lys Glu Glu
1160   1165   1170   1175

gaa agc caa aac aaa act gaa gag gtc tcc aaa ctc cag tct gag att   3964
Glu Ser Gln Asn Lys Thr Glu Glu Val Ser Lys Leu Gln Ser Glu Ile
1180   1185   1190

cag aat act aaa caa gcg tta aaa aaa tta gag act cgg gag gtg gtt   4012
Gln Asn Thr Lys Gln Ala Leu Lys Lys Leu Glu Thr Arg Glu Val Val

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                                                                      4060
gat ttg tcg aaa tat aaa gca acg aaa agc gat ttg gag aca cag att
Asp Leu Ser Lys Tyr Lys Ala Thr Lys Ser Asp Leu Glu Thr Gln Ile
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                                                                      4108
tcc gac tta aac gaa aaa ttg gcc aat ctg aat agg aag tat gag gaa
Ser Asp Leu Asn Glu Lys Leu Ala Asn Leu Asn Arg Lys Tyr Glu Glu
        1225                1230                1235

                                                                      4156
gta tgt gag gag gtt ttg cat gcc aaa aag aag gaa ctg tct gct aaa
Val Cys Glu Glu Val Leu His Ala Lys Lys Lys Glu Leu Ser Ala Lys
1240                          1245          1250                1255

                                                                      4204
gat gag aag gaa ttg ctc cat ttc agc ata gag caa gaa atc aaa gat
Asp Glu Lys Glu Leu Leu His Phe Ser Ile Glu Gln Glu Ile Lys Asp
                1260                    1265                1270

                                                                      4252
cag cag gaa cga tgt gac aaa tcc tta aca acc atc acg gag cta cag
Gln Gln Glu Arg Cys Asp Lys Ser Leu Thr Thr Ile Thr Glu Leu Gln
           1275                1280                    1285

                                                                      4300
aga aga ata cag gaa tct gcc aaa caa atc gaa gca aaa gat aat aag
Arg Arg Ile Gln Glu Ser Ala Lys Gln Ile Glu Ala Lys Asp Asn Lys
        1290                1295                    1300

                                                                      4348
ata act gaa ctg ctc aat gat gtg gag aga tta aaa cag gcc ctc aat
Ile Thr Glu Leu Leu Asn Asp Val Glu Arg Leu Lys Gln Ala Leu Asn
        1305                    1310                1315

                                                                      4396
ggc ctt tcc cag ctc acc tat gga agt ggg agt ccc agc aag agg cag
Gly Leu Ser Gln Leu Thr Tyr Gly Ser Gly Ser Pro Ser Lys Arg Gln
1320                    1325                1330                1335

                                                                      4444
agt cag ctg att gac agc ctg cag cag cag gtc agg tcc ctg cag cag
Ser Gln Leu Ile Asp Ser Leu Gln Gln Gln Val Arg Ser Leu Gln Gln
                1340                    1345                1350

                                                                      4492
cag ctg gcg gat gcc gac aga cag cac caa gaa gta att gca att tat
Gln Leu Ala Asp Ala Asp Arg Gln His Gln Glu Val Ile Ala Ile Tyr
        1355                    1360                    1365

                                                                      4540
cgg aca cac ctt ctt agt gct gca cag ggt cac atg gat gag gat gtg
Arg Thr His Leu Leu Ser Ala Ala Gln Gly His Met Asp Glu Asp Val
        1370                    1375                1380

                                                                      4588
cag gcc gcc tta ctg cag atc ata cag atg cgg cag ggg ctc gtg tgc
Gln Ala Ala Leu Leu Gln Ile Ile Gln Met Arg Gln Gly Leu Val Cys
        1385                1390                1395

                                                                      4637
tag tcg gca cccccagcc cacagtggct ttccctgctg gtgctgagca
 *  Ser Ala
        1400

                                                                 4697
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tgtattttga tccatcaaaa aaaaaaaaaa aaa
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            20                  25                  30
Asp Val Glu Lys Val Ser Ser Ile Leu Ala Lys Lys Gly Val Asn Pro
        35                  40                  45
Gly Lys Leu Asp Val Glu Gly Arg Ser Ala Phe His Val Val Ala Ser
    50                  55                  60
Lys Gly Asn Leu Glu Cys Leu Asn Ala Ile Leu Ile His Gly Val Asp
65              70                  75                  80
Ile Thr Thr Ser Asp Thr Ala Gly Arg Asn Ala Leu His Leu Ala Ala
            85                  90                  95
Lys Tyr Gly His Ala Leu Cys Leu Gln Lys Leu Leu Gln Tyr Asn Cys
        100                 105                 110
Pro Thr Glu His Val Asp Leu Gln Gly Arg Thr Ala Leu His Asp Ala
    115                 120                 125
Ala Met Ala Asp Cys Pro Ser Ser Ile Gln Leu Leu Cys Asp His Gly
    130                 135                 140
Ala Ser Val Asn Ala Lys Asp Val Asp Gly Arg Thr Pro Leu Val Leu
145             150                 155                 160
Ala Thr Gln Met Cys Arg Pro Thr Ile Cys Gln Leu Leu Ile Asp Arg
            165                 170                 175
Gly Ala Asp Ile Asn Ser Arg Asp Lys Gln Asn Arg Thr Ala Leu Met
        180                 185                 190
Leu Gly Cys Glu Tyr Gly Cys Lys Asp Ala Val Glu Val Leu Ile Lys
    195                 200                 205
Asn Gly Ala Asp Val Thr Leu Leu Asp Ala Leu Gly His Asp Ser Ser
    210                 215                 220
Tyr Tyr Ala Arg Ile Gly Asp Asn Leu Asp Ile Leu Thr Leu Leu Lys
225             230                 235                 240
Thr Ala Ser Glu Asn Ser Asn Lys Gly Arg Glu Leu Trp Lys Lys Gly
            245                 250                 255
Pro Ser Leu Gln Gln Arg Asn Leu Ser Gln Met Leu Asp Glu Val Asn
    260                 265                 270
Thr Lys Ser Asn Gln Arg Glu His Gln Asn Ile Gln Asp Leu Glu Ile
    275                 280                 285
Glu Asn Glu Asp Leu Lys Glu Arg Leu Arg Lys Ile Gln Gln Glu Gln
    290                 295                 300
Arg Ile Leu Leu Asp Lys Val Asn Gly Leu Gln Leu Gln Leu Asn Glu
305             310                 315                 320
Glu Val Met Val Ala Asp Asp Leu Glu Ser Glu Lys Glu Lys Leu Lys
            325                 330                 335
Ser Leu Leu Ala Ala Lys Glu Lys Gln His Glu Glu Ser Leu Arg Thr
    340                 345                 350
Ile Glu Ala Leu Lys Ser Arg Phe Lys Tyr Phe Glu Ser Asp His Leu
    355                 360                 365
Gly Ser Gly Ser His Phe Arg Lys Glu Asp Met Leu Leu Lys Gln Gly
    370                 375                 380
Gln Met Tyr Met Thr Asp Ser Gln Cys Thr Ser Thr Gly Met Pro Val
385             390                 395                 400
His Met Gln Ser Arg Ser Met Leu Arg Pro Leu Glu Leu Ala Leu Pro
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405
Asn Gln Ala Ser Tyr Ser Glu Asn Glu Ile Leu Lys Lys Glu Leu Glu
410 415
420 430
Ala Met Arg Thr Phe Cys Asp Ser Ala Lys Gln Asp Arg Leu Lys Leu
425
435 445
Gln Asn Glu Leu Ala His Lys Val Ala Glu Cys Lys Ala Leu Ala Leu
440 460
450 455
Glu Cys Glu Arg Val Lys Glu Asp Ser Asp Glu Gln Ile Lys Gln Leu
465 470 475 480
Glu Asp Ala Leu Lys Asp Val Gln Lys Arg Met Tyr Glu Ser Glu Gly
485 490 495
Lys Val Lys Gln Met Gln Thr His Phe Leu Ala Leu Lys Glu His Leu
500 505 510
Thr Ser Asp Ala Ala Thr Gly Asn His Arg Leu Met Glu Glu Leu Lys
515 520 525
Asp Gln Leu Lys Asp Met Lys Val Lys Tyr Glu Gly Ala Ser Ala Glu
530 535 540
Val Gly Lys Leu Arg Asn Gln Ile Lys Gln Asn Glu Met Leu Val Glu
545 550 555 560
Glu Phe Lys Arg Asp Glu Gly Lys Leu Met Glu Glu Asn Lys Arg Leu
565 570 575
Gln Lys Glu Leu Ser Met Cys Glu Leu Glu Arg Glu Lys Arg Gly Arg
580 585 590
Lys Leu Thr Glu Met Glu Gly Gln Leu Lys Asp Leu Ser Ala Lys Leu
595 600 605
Ala Leu Ser Ile Pro Ala Glu Lys Phe Glu Asn Met Lys Ser Leu Leu
610 615 620
Ser Asn Glu Leu Asn Glu Lys Ala Lys Lys Leu Ile Asp Val Glu Arg
625 630 635 640
Glu Tyr Glu Arg Ser Leu Asn Glu Thr Arg Pro Leu Lys Arg Glu Leu
645 650 655
Glu Asn Leu Lys Ala Lys Leu Ala Gln His Val Lys Pro Glu Glu His
660 665 670
Glu Gln Leu Lys Ser Arg Leu Glu Gln Lys Ser Gly Glu Leu Gly Lys
675 680 685
Arg Ile Thr Glu Leu Thr Ser Lys Asn Gln Thr Leu Gln Lys Glu Ile
690 695 700
Glu Lys Val Cys Leu Asp Asn Lys Leu Leu Thr Gln Gln Val Asn Asn
705 710 715 720
Leu Thr Thr Glu Met Lys Asn Val Pro Leu Lys Val Ser Glu Glu Met
725 730 735
Lys Lys Ser His Asp Val Ile Val Asp Asp Leu Asn Lys Lys Leu Ser
740 745 750
Asp Val Thr His Lys Tyr Thr Glu Lys Lys Leu Glu Met Glu Lys Leu
755 760 765
Leu Met Glu Asn Ala Ser Leu Ser Lys Asn Val Ser Arg Leu Glu Thr
770 775 780
Val Phe Ile Pro Pro Glu Arg His Glu Lys Glu Met Met Ala Leu Lys
785 790 795 800
Ser Asn Ile Thr Glu Leu Lys Lys Gln Leu Ser Glu Leu Asn Lys Lys
805 810 815
Cys Gly Glu Asp Gln Glu Lys Ile Tyr Ser Leu Met Ser Glu Asn Asn
820 825 830
Asp Leu Lys Lys Thr Met Ser His Gln Tyr Val Pro Val Lys Thr His
835 840 845
Glu Glu Ile Lys Thr Ala Leu Ser Ser Thr Leu Asp Lys Thr Asn Arg
850 855 860

Glu Leu Val Asp Val Lys Lys Lys Cys Glu Asp Ile Asn Gln Glu Phe
865 870 875 880
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